

California Biomass Energy Alliance, LLC



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January 31, 2006

Climate Action Team
California Environmental protection Agency
1001 I Street, P.O. Box 2815
Sacramento, CA 95812-2815

RE: Climate Action Team Report to the Governor and Legislature

Dear Commissioners:

We congratulate the Climate Action Team on a job well done. The draft report synthesizes a great deal of information into a comprehensive and coherent vision for reducing the state's greenhouse gas emissions, and coping with the future effects of climate change. California, once again, is providing needed leadership in a key environmental area.

The draft report does recognize the positive role that biomass energy production plays in promoting improved forest management, by reducing wildfire risks and associated greenhouse gas emissions, and preventing long-term forest carbon loss. We would like to see the report go a good deal further in its consideration of the greenhouse gas benefits that are delivered by energy production from all forms of biomass resources in California. These benefits are delineated in the recently released *Biomass Task Force Report* of the Western Governors Association's Clean and Diversified Energy Advisory Committee (WGA/CDEAC), which is co-chaired by Governor Schwarzenegger. We are attaching a copy of the report to these comments. The policy recommendations in this report constitute the basis for an integrated state biomass policy that will deliver greenhouse-gas benefits well beyond those articulated in the draft *Climate Action Team Report to the Governor and Legislature*.

Biomass provides a unique nexus between carbon and energy. The world's terrestrial biomass contains more than 2.5 times as much carbon as does the atmosphere. More than ten times more carbon cycles annually between the atmosphere and terrestrial biomass than is released by the burning of fossil fuels. The difference is that the total stock of carbon in the atmospheric-biospheric system is approximately in balance, while the burning of fossil fuels removes carbon from geological storage, and adds it to the total stock of carbon already in atmospheric-biospheric circulation.

Carbon cycles from the atmosphere to terrestrial biomass via photosynthesis. It returns to the atmosphere via a variety of pathways, including respiration, decomposition, and fire.

productivity, both of which are discussed in the following paragraphs on page 30, although without consideration of the mitigating benefits of thinning.

The last part of section 4.7, potential coping strategies, on page 32, states:

Some options needed to reduce greenhouse gas emissions can be seen as coping strategies. They include, for example, enhanced energy efficiency programs, increased penetration of photovoltaic systems, and the implementation of measures designed to reduce the heat island effect.

All renewables provide for the reduction of greenhouse gas emissions by displacing fossil fuel use. Photovoltaic systems are no different than other renewables in this regard. Indeed, as discussed above, biomass energy production, because of its direct link to the carbon cycle, provides five times as much greenhouse gas relief as other renewables per unit of renewable energy produced.³ The last sentence in the section on coping strategies should be corrected to read:

They include, for example, enhanced energy efficiency programs, increased penetration of biomass and renewable energy photovoltaic systems, and the implementation of measures designed to reduce the heat island effect.

In the chapter on cap-and-trade options, page 69, is a section titled: "Other Program Design Elements." The first bullet point in this section states that all climate-change gases should be included in a California cap-and-trade program, not just CO₂. We agree. In addition, we strongly urge the inclusion in this bullet point of an explicit consideration of the trade-offs that are possible between CO₂ and CH₄, with proper credit given in a cap-and-trade program for measures that shift carbon emissions associated with wastes and residues from CH₄ to CO₂. We would be pleased to provide specific language on this or other topics we have discussed, if that would be helpful.

Thank you for taking our comments and recommendations into consideration. If you have any questions, you may contact me or CBEA's consultant, Gregg Morris, at (510) 644-2700.

Sincerely



Phil Reese
Chairman, California Biomass Energy Alliance
Board Director, Colmac Energy, Inc.

³ Because the non-fossil displacement greenhouse gas benefits of biomass are four times greater than the fossil displacement benefits, as noted previously, biomass provides five times more benefit than renewables whose only greenhouse gas benefit is fossil fuel displacement (the fossil displacement plus the 4 x greater benefits of shifting CH₄ emissions to CO₂).